UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,807	12/29/2000	Min Zhu	M-8855 US	5221

7590	12/21/2004	

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EXAMINER
COULTER, KENNETH R

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cov r sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *24 June 2004 and 15 September 2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-26* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-26* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *16 August 2001* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date *7/14/04*.

4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Inventorship

1.   In view of the papers filed 9/15/04, it has been found that this nonprovisional

application, as filed, through error and without deceptive intent, improperly set forth the

inventorship, and accordingly, this application has been corrected in compliance with 37

CFR 1.48(a). The inventorship of this application has been changed by the addition of

inventor Bin Zhao.

The application will be forwarded to the Office of Initial Patent Examination

(OIPE) for issuance of a corrected filing receipt, and correction of Office records to

reflect the inventorship as corrected.

Claim Objections

2.   Claim 23 is objected to because of the following informalities:

"each collaboration server is *operable host*" (claim 23, lines 1 – 2).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1 - 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Savage, III et al. (U.S. Pub. No. 2001/0009014 A1) (Facilitating Real-Time, Multi-Point Communications Over the Internet).

4.1   Regarding claim 1, <u>Savage</u> discloses a computer system for fault-tolerant distributed collaborative computing, the system comprising:

a plurality of server computers connected to a plurality of client computers via a global-area computer network (Fig. 1; Abstract "the **plurality** of media servers");

a high speed direct connection link connecting the plurality of server computers (p. 2, paragraphs 11 "The dispatch and media servers (referred to collectively herein as the network operating center or NOC) sit directly on a **high bandwidth, optical backbone** by which remote clients may access the system."); and

a computer program executable by the server computers, wherein the computer program comprises computer instructions for:

conducting an online conference among an arbitrary number of client computers connected to an arbitrary number of the server computers via the global area network and the high speed direct connection link (Abstract "a first conference between a plurality of clients on a network"; p. 2, paragraph 11 "a conferencing system is provided which is **scaleabl to any number** of simultaneous users");

monitoring for a respective heartbeat message from each of the server

computers involved in the on-line conference (p. 4, paragraph 44 "Standby dispatch

server 110 runs a standby service (not shown) which monitors the heartbeat of the

dispatch application on server 102 ... also **monitors the heartbeat** of any of a variety of

machines on the network ... These machine may include, for example, the default

gateway, **any of the media servers, ...**");

if no respective heartbeat message is received from on of the server

computers involved in the on-line conference, disconnecting that server computer from

the on-line conference (p. 4, paragraphs 44; p. 4, paragraph 45 "**If any of the**

monitored heartbeats fail, standby server 110 triggers a **switch over.**");

connecting another of the server computer to the conference (p. 4,

paragraph 45); and

resuming the online conference (p. 4, paragraph 45 "operation of the

system continues as if there were no interruption.").

4.2   Per claim 2, <u>Savage</u> teaches that the computer program further comprises

computer instructions for:

periodically replicating (mirroring) state information among processes executed

by the server computers to conduct the online conference (p. 4, paragraph 43 "The

slaves list and the Master service are **mirrored** on standby dispatch server 110.");

detecting a failure of one of the process (p. 4, paragraphs 43, 44);

spawning a new process on the server computers (p. 4, paragraphs 43, 44, and

45); and

loading the replicated state information on the new process (p. 4, paragraphs 43,

44, and 45).

4.3   Regarding claim 3, Savage discloses that the processes whose state is

replicated maintain information about the online conference (Abstract "facilitating a first

conference ..."; p. 4, paragraph 43 "The **slaves list and the Master service are**

mirrored on standby dispatch server 110."; p. 4, paragraph 44).

4.4   Per claim 4, Savage teaches that the processes whose state is replicated handle

communications between one of the client computers and one of the server computers

(p. 4, paragraph 43 "The slaves list and the **Master service are mirrored** on standby

dispatch server 110."; p. 4, paragraphs 44 and 45).

4.5   Regarding claim 5, Savage discloses that the processes whose state is

replicated control access to a document shared among participants of the online

conference (Abstract; p. 4, paragraph 43 "The slaves list and the **Master service are**

mirrored on standby dispatch server 110."; p. 4, paragraphs 44 and 45).

4.6   Per claim 6, Savage teaches that the processes whose state is replicated control

execution of an application shared among participants of the online conference

(Abstract; p. 4, paragraph 43 "The slaves list and the **Master service are mirrored** on standby dispatch server 110."; p. 4, paragraphs 44 and 45).

4.7   Regarding claims 7 – 18, the rejection of claims 1 – 6 under 35 USC 102(e) (paragraphs 4.1 – 4.6 above) applies fully.

4.9   Per claims 19 – 26, the rejection of claims 1 – 6 under 35 USC 102(e) (paragraphs 4.1 – 4.6 above) applies fully.

5.   Claims 19 – 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Salesky et al. (U.S. Patent No. 6,343,313) (Computer Conferencing System with Real-Time Multipoint, Multispeed, Multi-Stream Scalability)

5.1   Regarding claim 19, Salesky discloses a method for providing fault-tolerance in a distributed system for collaborative computing having a meeting manager, a plurality of collaboration server computers, and a plurality of application server computers, the method comprising:

conducting an on-line conference among a plurality of client computers connected to the distributed system via a global-area network, wherein a portion of the collaboration server computers and application server computers are involved in the on-line conference (Fig. 1; col. 9, lines 1 - 5);

detecting a failure of one of the collaboration server computers or application

server computers involved in the on-line conference using the meeting manager (col.

26, line 63 – col. 27, line 24);

disconnecting the failed collaboration server computer or failed application server

computer from the on-line conference (col. 26, line 63 – col. 27, line 24);

connecting another of the collaboration server computers or the application

server computers not already involved in the on-line conference to the on-line

conference as a replacement for the failed collaboration server computer or failed

application server computer (col. 26, line 63 – col. 27, line 24 "servers themselves can

be assigned backup servers as well." "It is also possible to have servers ready, but not

active, as **backups**, or to have **mirroring servers** for even more secure redundancy.");

and

resuming the on-line conference (col. 26, line 63 – col. 27, line 24 "the system

may be configured so that a **disrupted conference session** can be robustly **resumed**

with minimal loss of data and time.").

5.2   Per claim 20, Salesky teaches the method of claim 19, comprising:

periodically replicating (mirroring) respective state information for a plurality of

processes executed by the collaboration server computers or application server

computers involved in the on-line conference to conduct the on-line conference (col. 26,

line 63 – col. 27, line 24 "It is also possible to have servers ready, but not active, as

backups, or to have **mirroring servers** for even more secure redundancy.");

detecting a failure of one of the processes (col. 26, line 63 – col. 27, line 24);

spawning a new process on the collaboration server computers or application

server computers involved in the on-line conference as a replacement for the failed

process (col. 26, line 63 – col. 27, line 24); and

loading the replicated respective state information for the failed process to the

new process (col. 26, line 63 – col. 27, line 24 "Since the state of the conference can be

announced to all servers, the system may be configured ...").

5.3   Regarding claim 21, Salesky discloses the method of claim 19, wherein at least

one of the plurality of processes maintains information about the on-line conference

(col. 26, line 63 – col. 27, line 24 "Since the state of the conference can be announced

to all servers, the system may be configured ...").

5.4   Per claim 22, Salesky teaches the method of claim 19 wherein at least one of the

plurality of processes handles communications between one of the client computers and

one of the collaboration server computers or application server computers (col. 26, line

63 – col. 27, line 24).

5.5   Regarding claim 23, Salesky discloses the method of claim 19 wherein each

collaboration server is operable to host at least a portion of the on-line conference (col.

26, line 63 – col. 27, line 24).

5.6   Per claim 24, Salesky teaches the method of claim 19 wherein each application

server is operable to support at least one service for the on-line conference (col. 26, line

63 – col. 27, line 24).

5.7   Regarding claim 25, Salesky discloses the method of claim 24 wherein the at

least one service for the on-line conference comprises one of document viewing, file

sharing, video, VOIP, telephony, polling, chat, and application sharing (col. 14, lines 45

– 58 "Streams other than the shared-screen conferencing stream ... can carry

information to allow **shared** or broadcast **text chat**, audio, **video**, drawing,

whiteboarding, **and other communications**.").

Response to Arguments

6.   Applicant's arguments with respect to claims 1 - 26 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

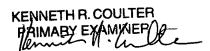MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth R Coulter whose telephone number is 571 272-

3879. The examiner can normally be reached on 5 4 9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on 571 272-3880. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

KENNETH R. COULTER
PRIMARY EXAMINER

krc